

# Integrated counseling and HIV testing centers of Delhi: An evaluation

Vinoth Gnana Chellaiyan<sup>1</sup>, Deepak K. Raut<sup>2</sup>, Anita Khokhar<sup>3</sup>

<sup>1</sup>Department of Community Medicine, Chettinad Hospital and Research Institute, Chennai, Tamil Nadu, <sup>2</sup>Family Welfare Training and Research Centre, (Ministry of Health and FW, Govt. of India), Mumbai, Maharashtra, <sup>3</sup>Department of Community Medicine, VMMC and Safdarjung Hospital, New Delhi, India

## ABSTRACT

**Background:** HIV counseling and testing services are a key entry point in prevention of HIV infection, treatment, and care of people with HIV. Evaluation of counseling, testing, and referral services help to increase the effectiveness, efficiency, and quality of services delivered by providers by improving any deficiencies in availability, accessibility, and acceptability of testing and counseling services. The objective of this study was to evaluate the integrated counseling and testing centers (ICTC) in New Delhi. **Materials and Methods:** The evaluation study was conducted among ICTCs during 2014–2015. Twenty ICTCs of New Delhi were selected on the basis of population proportion to the size of clients catered. The study tool was pretested structured tool for evaluating HIV voluntary counseling and testing (VCT). The evaluation tool consists of an assessment of components including the availability of infrastructure, laboratory services, referral services, and staff availability. Counseling sessions were also observed for assessing content and quality. Means and proportions were calculated. **Results:** Twelve (60%) ICTCs had dedicated counseling rooms ensuring privacy for the clients. Waiting space was reported to be adequate in 16 (80%) ICTCs. Space within counseling room was observed to be adequate in 8 (40%) ICTCs. Counselors of both sexes were present in 12 (60%) ICTCs. Both external and internal quality assurance was observed in all ICTCs. Standard operating procedures were followed in 15 (75%) ICTCs. On observation of the counseling sessions, it was found that 67.4% of male counselors and 67.2% of female counselors addressed all the issues of content of counseling. **Conclusion:** ICTCs lack waiting area and adequate space in counseling room and required staff personnel. Records maintenance and laboratory quality control maintained by ICTCs were found to be adequate. The counseling rooms lack privacy that may compromise the confidentiality of clients. Few components of counseling need improvement.

**Keywords:** Evaluation, HIV counseling, integrated counseling and testing centers

## Introduction

HIV counseling and testing services are a key entry point in HIV prevention and treatment of people with HIV. These services provide accurate information about HIV and help the clients to undergo HIV test in a supportive and confidential environment.<sup>[1]</sup> With the introduction of antiretroviral therapy (ART), the scope of voluntary counseling and testing centers (VCTCs) further expanded to include preparedness

and adherence along with counseling for people on ART. HIV counseling and testing services were provided to 66.62 lakh persons in the year 2010.<sup>[2]</sup> Barriers to voluntary counselling and testing (VCT) include low perceived risk for HIV infection, negative perceptions of testing services, lengthy pre- and post-test counseling, and shortages of counselors.<sup>[3–5]</sup> To provide integrated services, earlier VCTCs and prevention of parental to child transmission were brought under one roof to cater general and ANC clients and was renamed as integrated counseling and testing centers (ICTCs).<sup>[6]</sup> In India, the ICTC services are provided through 4486 standalone ICTCs, 4071 Facility ICTCs at 24 × 7 PHCs and 902 ICTCs under public–private partnership

**Address for correspondence:** Dr. Vinoth Gnana Chellaiyan, Department of Community Medicine, Chettinad Hospital and Research Institute, Kelambakkam, Chennai, Tamil Nadu, India. E-mail: drchellaiyan@gmail.com

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model. A total of 90.52 lakh clients tested for HIV in the year 2011–2012.<sup>[7]</sup> Evaluation of counseling, testing, and referral services increase the effectiveness, efficiency, and quality of services delivered by providers and improves the availability, accessibility, and acceptability of testing and counseling services.<sup>[8]</sup> Periodical evaluation of counseling, testing, and referral services is mandatory to find out any existing deficits and barriers of all functions of ICTCs. The study was an attempt to evaluate the various services of ICTCs in Delhi.

## Materials and Methods

### Study setting

The study was an evaluation study conducted in ICTCs of Delhi from 2014 to 2015.

### Sampling

The evaluation study was conducted in selected ICTCs existing in health-care facilities representing all nine districts of Delhi. There were 75 ICTCs in public health sector in Delhi at the time of the study. Among these, 20 ICTCs were chosen on the basis of population proportion to size of clients catering to.

### Study instrument

For evaluation of ICTCs, tools for evaluating HIV VCT published by UNAIDS<sup>[9]</sup> and ICTCs requirement guidelines laid by National AIDS Control Organization (NACO)<sup>[6]</sup> were used. The original tool was available in English which had been standardized and validated. The evaluation tool consists of assessment components such as infrastructure, laboratory services, staff availability, and quality and content of counseling sessions. Infrastructure for the provision of counseling services—adequacy of waiting area and privacy of counseling rooms, dedicated laboratory rooms, information, education, and communication (IEC) materials such as signboards directing the way to ICTCs, and included flipbooks/flash cards, posters, wall charts, video films, leaflets/handouts, models and games in ICTCs and hospital premises. Laboratory services were assessed with the availability of standard operating procedures (SOPs) and quality control. Availability of dedicated staff for ICTC services was assessed. The counseling sessions were observed for content and quality of counseling. There were nine components for assessing the content of counseling session. Scores were given for individual components, as 1 for yes, 0 for no with a total maximum score of 9. The assessment of the content of counseling was graded as very good ( $\geq 7$ ), good (5–6), average (3–4) and poor ( $< 3$ ). The quality of counseling sessions were assessed in three domains—interpersonal relationships, gathering information and giving information with a total of 12 components. Scores were given to all the components, as 1 for yes, 0 for no with a total maximum score of 12. The assessment of the quality of counseling was graded as very good (Score  $\geq 9$ ), good (6–8), average (3–5), and poor ( $< 3$ ). Pretesting and validation of the tool were done before the conduct of the study.

### Data analysis

Data validation checks were performed at a regular interval for data entered into the worksheet of MS Excel. After data entry of every five questionnaires, one questionnaire was selected randomly and the entries were verified and validated. Data were analyzed with Statistical Package for Social Sciences (SPSS) (IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0, IBM Corp., Armonk, NY, USA) mean and proportions were calculated.

### Ethical consideration

The evaluation was conducted after obtaining approval from Delhi State AIDS Control Society, Medical Superintendents of hospitals running the selected ICTCs and Institutional Ethical Committee. Written informed consent was obtained from the clients while assessing the counseling sessions.

## Results

Twenty selected ICTCs represented all nine districts of Delhi—two from the south, five from southwest, four from northwest, two from the west, three from central, two from New Delhi, one from north and east districts.

### Infrastructure

Waiting space was reported to be adequate in 16 (80%) ICTCs. Space within counseling room was observed to be adequate in 8 (40%) ICTCs. Twelve (60%) ICTCs had counseling rooms that ensured the privacy of the clients. Facility of pre-test counseling, post-test counseling and HIV testing were available in all 20 (100%), group counseling in 16 (80%) and follow-up counseling in 8 (40%) ICTCs. Prior appointment was not necessary for the clients to avail the services of ICTCs. There was no set upper limit about the number of clients that could receive counseling and HIV testing on a given day at any of the 20 ICTCs. Twelve (60%) ICTCs had separate blood collection and testing area. Area of washing was separate in 13 (65%) ICTCs, whereas it was attached to the testing area in rest 7 (35%) ICTCs. Illumination/lighting was reported to be sufficient in all ICTCs. There was a backup supply for electricity in 11 (55%) ICTCs, whereas no such back up was reported in 9 (45%) ICTCs. Adequate and continuous water supply was reported to be available in 16 (80%) ICTCs.

### Information, education, and communication materials utilization

Twelve (60%) ICTCs had display of sign boards with directions to ICTCs and there was IEC materials such as posters in more than two sites within the hospital premises. IEC materials utilized were Flip charts 20 (100%), posters 19 (95%), TV and wall charts 17 (85%), 3D models 16 (80%), and 14 (70%) handouts/pamphlets.

### Laboratory services

All 20 (100%) ICTCs were following the standard testing algorithm as per the NACO testing guidelines. All the ICTCs

were using rapid ELISA kits for HIV testing. However, test results were available on the same day in 6 (30%) ICTCs and in 14 (70%) ICTCs the test results were available on the same day only if registration for testing was done before 2 pm on a typical day. All the ICTCs were participating in external quality assessment scheme. There were no discordant pairs reported by any of the ICTCs. The laboratories were evaluated for internal quality assurance. In 15 (75%) ICTCs, SOPs for testing, washing, handling blood samples, and precautions were made and followed. All ICTCs were following the bio-safety guidelines of HIV testing laboratories and adequate documentation with maintenance of log books.

## Referral services

Both refer in and refer out services were available in all ICTCs [Table 1].

## Staff availability

Among the twenty ICTC in-charges, 11 (55%) were males and 9 (45%) were females. There were 32 trained counselors of which 14 (43.7%) were males and 18 (56.3%) were females. In 6 (30%) ICTCs, there were no male counselor and 2 (10%) ICTCs had no female counselors. There were 24 trained laboratory technicians of which 17 (70.8%) were males and 7 (29.2%) were females with a male:female ratio of 2.4:1.

## Counseling sessions

Counseling sessions were evaluated for quality and content of counseling. Thirty two counselors in 20 ICTCs were observed for their counseling skills in three client sessions each. Totally 64 pre-test and 45 post-test counseling sessions including four sessions for seropositive clients were observed. The duration of individual pre-test counseling sessions ranged 2–15 min with mean standard deviation (SD) of 5.8 (2.83) and post-test counseling sessions ranged 2–10 min with mean (SD) 2.43 (2.02). The post-test counseling sessions for seropositive clients ranged between 10 and 15 min.

## Assessment of content and quality of counseling

Only 22 (68.8%) of counselors addressed all the components of counseling content. The performance of counselors with respect to content was very good 10 (31.2%), good 15 (46.8%), and average 7 (21.8%). The mean (SD) score for content was 6.06 ( $\pm 1.501$ ) with minimum to maximum score was 3 and 8, respectively. Seventeen (53.1%) counselors obtained score  $>6$  [Table 2]. The performance of counselors with respect to quality of counseling was very good 2 (6.2%), good 21 (65.6%), average 6 (18.7%), and poor 3 (9.3%). The mean (SD) score for quality 6.38 ( $\pm 2.09$ ) with a minimum to maximum score from 2 to 11 [Table 3].

Nearly 67.4% of male counselors and 67.2% of female counselors addressed all the issues of content of counseling. Analysis for gender differences of components of content and quality of counseling sessions was not found to be significant. Mean scores

**Table 1: Referral services of selected Integrated counselling and testing centre, Delhi (n=20)**

Referral services	Number of ICTC (n=20), n (%)
Refer-in	
DOTS centre	20 (100)
Medical services*	20 (100)
STI clinic	20 (100)
Nongovernmental organizations/ targeted interventions	19 (95)
Family planning services	18 (90)
Maternal and child health services	15 (75)
Refer-out	
DOTS centre	20 (100)
Medical services*	19 (95)
STI clinic	19 (95)
Nongovernmental organizations/ targeted interventions	17 (85)
Family planning services	16 (80)
Maternal and child health services	16 (80)
Community care centres	9 (45)

\*Medical and surgical disciplines. DOTS: Directly observed treatment shortcourse; ICTC: Integrated counselling and testing centre; STI: Sexually transmissible infection

**Table 2: Assessment of content of counselling sessions observed at integrated counselling and testing centres, Delhi**

Content of counselling	Discussed (n=32), n (%)	
	Yes	No
Pretest counselling		
Reasons for attending	32 (100.0)	0
Knowledge about HIV and modes of transmission	31 (96.9)	1 (3.1)
Follow up arrangements	29 (90.6)	3 (9.4)
Misconceptions	24 (75.0)	8 (25.0)
Time allowed to think through the issues	22 (68.8)	10 (31.2)
Adequate time for questions and clarification	8 (25.0)	24 (75.0)
Information about other STI	2 (6.2)	30 (93.8)
Posttest counselling		
Explained the test results clearly	32 (96.9)	0
Repeated information about HIV and transmission modes	14 (43.7)	18 (56.3)
Posttest counselling sessions for sero-positive clients		
Time allowed for understanding the results	4 (100)	0
Follow up arrangements for positive patients discussed	4 (100)	0
Discussion about informing the result to the spouse or family persons	4 (100)	0
Discussion of family and personal implications and situations	3 (75)	1 (25)
Discussion about coping with immediate emotional problems	2 (50)	2 (50)
Information about assistance schemes for person living with HIV/AIDS	1 (25)	3 (75)

STI: Sexually transmissible infection

of content and quality of counseling were analyzed with gender, age criteria, and educational status of the counselors. There was no statistically significant difference in the mean scores [Table 4].

## Discussion

The evaluation identified the adequacy and deficits of selected ICTCs of Delhi. Twelve ICTCs were lacking adequate space in counseling room. Comparatively, better infrastructure was found in a study done in South India by Papanna *et al.*<sup>[10]</sup> in which 11 (85%) centers had adequate counseling rooms, 12 (92%) centers had minimum required furniture, equipments and consumables. While in a study carried out in West Bengal, India by Mukherjee *et al.*<sup>[11]</sup> gaps were found in the infrastructure in the form of counseling room and laboratory. Deficits in infrastructure were found in a study done in Ethiopia by Biadlegne *et al.*<sup>[12]</sup> In a study done in Zimbabwe by Sibanda *et al.*<sup>[13]</sup> there was a shortage of counseling space in 75% (12) health centers. Similar reports in terms of shortage of the number, structure, and function of dedicated VCT rooms was found in the study done in Malawi by Chimzizi *et al.*<sup>[14]</sup> In a study done in Uganda by Mayanja *et al.*<sup>[15]</sup> counseling rooms were available

in up to 90% facilities but adequacy in privacy of clients during counseling sessions was there in 77% of these rooms. Similarly in a study done in Thailand<sup>[16]</sup> it was reported that eight out of nineteen hospitals did not have adequate space to provide private counseling sessions. Nevertheless, separate counseling room with adequate privacy is very essential component of the ICTCs, which was lacking in eight ICTCs.

Adequate two-way referral services for tuberculosis/DOTS, maternal and child health, medical, family planning, and sexually transmissible infection clinics were available in all ICTCs. Only 60% ICTCs displayed sign boards with directions and posters with information about HIV counseling and testing displayed at prominent locations within their ICTCs. This is not in accordance with operational guidelines for ICTCs which suggest that the facility that hosts an ICTC should have the sign boards and posters placed at prominent locations to publicize the ICTC services.<sup>[6]</sup> Although the availability and utilization of IEC materials within the center was adequate, the sign boards and posters in the hospital premises where the ICTC was located were inadequate in most of the ICTCs. Publicizing the facilities available at the ICTCs in the hospital premises where the ICTCs are located is mandatory.

Although all ICTCs were following the standard HIV testing algorithm using the rapid kits for testing, results of HIV tests were available on the same day in only six ICTCs. The reason as reported by the counselors was due to high client load every day. Also, quality assurance was maintained by all the ICTCs, but SOPs were not made and followed by few ICTCs.

There was lack of both male and female counselors in few ICTCs. This would cause difficulty during counseling session as clients might not be comfortable in discussing the issues with counselors of opposite sex.

The individual mean duration of pre- and post-test counseling sessions was less. This duration of the pre-test counseling sessions is not adequate to furnish information about modes

**Table 3: Assessment of quality of counseling sessions at integrated counseling and testing centers, Delhi**

Quality of counseling	Observation (n=32), n (%)	
	Yes	No
Inter personal relationship		
Greeted clients	6 (18.8)	26 (81.2)
Self-introduction	1 (3.1)	31 (96.9)
Engaged client in conversation	26 (81.2)	6 (18.8)
Listened actively	28 (87.5)	4 (12.5)
Gathering information		
Used appropriate balance of open and closed question	26 (81.2)	6 (18.8)
Sought clarification about information given	22 (68.8)	10 (31.2)
Summarized main issues discussed	22 (68.8)	
Giving information		
Gave information in clear and simple terms	30 (93.8)	2 (6.2)
Gave client time to absorb	28 (87.5)	4 (12.5)
Repeated and reinforced important information	16 (50.0)	16 (50.0)
Summarized main issues discussed	8 (25.0)	24 (75.0)
Got feedback from the patient at the end	8 (25.0)	24 (75.0)

**Table 4: Scores for content and quality of counseling and selected socio-demographic profile of the counsellors at integrated counseling and testing center, Delhi**

Variables	Content of counseling			Quality of counseling		
	Mean score (SD)	Mean difference	P	Mean score (SD)	Mean difference	P
Gender <sup>#</sup>						
Male	6.07 (1.5)	-0.01 (-1.12-1.09)	0.977	6.71 (2.4)	-0.60 (-2.13-0.92)	0.427
Female	6.06 (1.4)			6.11 (1.8)		
Age criteria <sup>#</sup> (years)						
<32	6.20 (1.3)	0.25 (-0.84-1.35)	0.634	6.40 (2.2)	0.04 (-1.49-1.58)	0.951
>32	5.94 (1.6)			6.35 (1.9)		
Education*						
Psychologist	6.50 (0.8)	0.697	0.171	7.67 (0.5)		
Social worker	6.00 (1.6)			6.12 (2.5)		
Sociologist	6.06 (1.6)			6.31 (1.9)		
Others	5.00 (1.4)			4.00 (2.8)		

<sup>#</sup>Independent t-test, \*ANOVA test applied. SD: Standard deviation



of transmission, prevention and treatment of HIV, gathering and giving information, and for clarification of doubts as well as addressing clients' queries. During counseling sessions, majority of counselors had not given time for questions and clarification. The majority counselors were lacking in the skills of greeting the clients and self-introduction, repeating and summarizing the information given. This component of the counseling skill is very essential as this would help in building the rapport among the clients thereby help to express them fully.

## Recommendations

ICTC should have a better infrastructure in terms of designated counseling space and proper waiting area for the clients so that the confidentiality of the clients is ensured. Promotion of IEC activities by increasing the public awareness would increase the direct walk-in client in flow. Recruitment of both male and female counselors and additional laboratory technicians in the centers where the client load is high. The duration and content of the counseling session shall be improved so that all the clients receive sufficient information during their session with the counselors.

## Conclusion

The infrastructure necessary to maintain the privacy of the clients was lacking in few ICTCs. ICTCs services such as referrals, IEC utilization in the center and laboratory quality control were found to be adequate. ICTC should have a better infrastructure in terms of designated counseling space and proper waiting area for the clients so that the confidentiality of the clients could be maintained. Recruitment of both male and female counselors and additional laboratory technicians in the centers where the client load is high. Some of the components both in terms of quality and content of the counseling at the ICTC needs improvement.

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## Conflicts of interest

There are no conflicts of interest.

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